

Digital Video Recorders Quick Guide



BOSCH

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Bosch Digital Video Recorders		DVR1A	DVR1C	DVR4C	Divar	Divar MR	DiBos Micro	DiBos Rackmount
System	Operating System	Embedded	Embedded	Embedded	Embedded	Embedded	Windows XP Embedded	Windows XP Embedded
	Rack Mountable	No	No	No	Yes	Yes	Yes	Yes
	SDK Available	No	No	No	Yes	No	HTML Interface	HTML Interface
	Warranty	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Video	Input Channels	1	1	4	6, 9, 16	8, 16	Analog: 6, 12 IP: 8	Analog: 6, 12, 18, 24, 30 IP: 16, 32
	Looping Video	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Output Composite Outs	1	1	1	2	2	2	2
	VGA	No	No	No	No	1	1	1 (plus optional 2nd)
Audio	Input Channels	0	2	4	n/a	4, 8	2, 4 (plus 8 from IP)	2, 4, 6, 8, 10 (plus up to 32 from IP cameras)
	Output Channels	0	2	4	n/a	1	1	1
	Compression Type	n/a	ADPCM	ADPCM	n/a	ADPCM2	G.726	G.726
	Sample Rate	n/a	8 KHz	8 KHz	n/a	8 KHz	32 KHz	32 KHz
Alarms	Synchronous Audio	n/a	Yes	No	n/a	Yes	No	No
	Associate Multiple Cameras to 1 Audio	n/a	n/a	No	n/a	Yes	Yes	Yes
	Inputs	1	1	4	6, 9 or 16 (one per video channel)	8, 16	12	32
	Relay Outputs	1	1	4	4	4, 8	12	16
Recording	Call Up Pre-position on Dome Cameras	n/a	n/a	n/a	Yes	No	Yes	Yes
	Increase Frame Rate on Alarm	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Simultaneous normal and event recording	Yes	Yes	Yes	Yes	No	Yes	Yes
	Multiple Camera Linking on Alarm Event	n/a	n/a	Yes	No	No	Yes	Yes
Compression	Notification via e-mail	No	No	Yes	No	Yes	Yes	Yes
	Notification to Remote PC	No	No	Yes	Yes	Yes	Yes	Yes
	Pre-alarm	Up to 220 Seconds	Up to 220 Seconds	Up to 30 Seconds	30 Seconds	Up to 60 Seconds	Yes	Yes
	Alarm Time	Unlimited	Unlimited	Up to 120 Seconds	Up to 60 Seconds	Up to 10 Minutes	Yes	Yes
IPS per Camera	Motion Detection	No	No	Yes	Yes	Yes	Yes	Yes
	Video	M-JPEG	M-JPEG	MPEG-4	Wavelet	MPEG-4	MPEG-4, JPEG	MPEG-4, JPEG
	Software or Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Video Hardware, Audio Software	
	PAL	50 IPS @ CIF	50 IPS @ CIF	100 IPS @ CIF	50 IPS @ 2CIF	400 IPS @ CIF	75/150 @ CIF	75/150/225/300/375 @ CIF
Recording Times	NTSC	60 IPS @ CIF	60 IPS @ CIF	120 IPS @ CIF	60 IPS @ 2CIF	480 IPS @ CIF	90/180 @ CIF	90/180/270/360/450 @ CIF
	PAL	25 IPS @ CIF (Normal) 50 IPS @ CIF (Alarm)	25 IPS (Normal) 50 IPS (Alarm)	25 IPS @ CIF	6 Ch.: 8.3 IPS @ 2CIF 9 Ch.: 5.0 IPS @ 2CIF 16 Ch.: 3.1 IPS @ 2CIF	25 IPS @ CIF	25 Per Camera Max 150 on a 12 Channel Unit @ CIF	25 Per Camera Max 375 on a 30 Channel Unit @ CIF
	NTSC	30 IPS @ CIF (Normal) 60 IPS @ CIF (Alarm)	30 IPS @ CIF (Normal) 60 IPS @ CIF (Alarm)	30 IPS @ CIF	6 Ch.: 10 IPS @ 2CIF 9 Ch.: 6.5 IPS @ 2CIF 16 Ch.: 3.75 IPS @ 2CIF	30 IPS @ CIF	30 Per Camera Max 180 on a 12 Channel Unit @ CIF	30 Per Camera Max 450 on a 30 Channel Unit @ CIF
	PAL	352 x 288	352 x 288	352 x 288	720 x 288	352 x 288/704 x 288/704 x 576	CIF/2CIF/4CIF Analog and IP Cameras	
Recording	NTSC	352 x 240	352 x 240	352 x 240	720 x 240	352 x 240/704 x 240/704 x 480	CIF/2CIF/4CIF Analog and IP Cameras	
	Individual Camera Adjustment (IPS, Quality)	n/a	n/a	No	Yes	Yes	Yes	Yes
	Schedule Recording Modes	Daily/Weekday/Weekend/Specific Day		Day/Night/Weekend	Day/Night/Weekend/Specific Day	Day/Week/Specific Day	Day/Night/Weekend/Holiday/Specific Day	
	HDD Overwrite Warning	No	No	Yes	No	Yes	Yes	Yes
Recording Times	Best Quality/Highest Res., 3 IPS Continuous, 50% Motion, Very Busy Scene (Outdoor), No Audio	6 Days (80 GB) @ CIF	12 Days (160 GB) @ CIF	7 Days (80 GB) @ CIF 13 Days (160 GB) @ CIF 26 Days (320 GB) @ CIF 50 Days (600 GB) @ CIF	6 Ch.: 5 Days (320 GB) @ 2CIF 9 Ch.: 4 Days (320 GB) @ 2CIF 9 Ch.: 7 Days (600 GB) @ 2CIF 16 Ch.: 4 Days (600 GB) @ 2CIF 16 Ch.: 6 Days (1000 GB) @ 2CIF	8 Ch.: 9 Days (500 GB) @ 4CIF 8 Ch.: 18 Days (1000 GB) @ 4CIF 16 Ch.: 9 Days (1000 GB) @ 4CIF 16 Ch.: 18 Days (2000 GB) @ 4CIF	6 Ch.: 10 Days (400 GB) @ 4CIF 12 Ch.: 5 Days (400 GB) @ 4CIF	6 Ch.: 19 Days (750 GB) @ 4CIF 12 Ch.: 10 Days (750 GB) @ 4CIF 18 Ch.: 9 Days (1000 GB) @ 4CIF 24 Ch.: 10 Days (1600 GB) @ 4CIF 30 Ch.: 8 Days (1600 GB) @ 4CIF
	Normal Quality/Standard Res., 3 IPS Continuous, 50% Motion, Very Busy Scene (Outdoor), No Audio	8 Days (160 GB) @ CIF	16 Days (160 GB) @ CIF	20 Days (80 GB) @ CIF 39 Days (160 GB) @ CIF 78 Days (320 GB) @ CIF 146 Days (600 GB) @ CIF	6 Ch.: 14 Days (320 GB) @ 2CIF 9 Ch.: 9 Days (320 GB) @ 2CIF 9 Ch.: 17 Days (600 GB) @ 2CIF 16 Ch.: 10 Days (600 GB) @ 2CIF 16 Ch.: 16 Days (1000 GB) @ 2CIF	8 Ch.: 36 Days (500 GB) @ CIF 8 Ch.: 72 Days (1000 GB) @ CIF 16 Ch.: 36 Days (1000 GB) @ CIF 16 Ch.: 72 Days (2000 GB) @ CIF	6 Ch.: 45 Days (400 GB) @ CIF 12 Ch.: 22 Days (400 GB) @ CIF	6 Ch.: 86 Days (750 GB) @ CIF 12 Ch.: 43 Days (750 GB) @ CIF 18 Ch.: 38 Days (1000 GB) @ CIF 24 Ch.: 46 Days (1600 GB) @ CIF 30 Ch.: 37 Days (1600 GB) @ CIF

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Bosch Digital Video Recorders		DVR1A	DVR1C	DVR4C	Divar	Divar MR	DiBos Micro	DiBos Rackmount
Storage	Internal HDD	80 GB	160 GB	80 - 160 - 320 - 600 GB	80 - 160 - 320 - 600 - 1000 GB	160 - 320 - 500 - 1000 - 2000 GB	250 - 400 GB	250 - 500 - 750 - 1000 - 1600 GB
	Supported Devices	Compact Flash	Compact Flash	USB 1.1	Internal CD/DVD Writer Remote Client	Internal CD/DVD Writer, USB 2.0	CD-RW, DVD, USB 2.0, Network Drive, SCSI	CD-RW, DVD, USB 2.0, Network Drive, SCSI
	Export	JPEG	JPEG	Native, AVI, or JPEG	Native File Format	Native File Format	Bosch, ASF	Bosch, ASF
	Data Format	Manual	Manual	Manual	Manual	Manual or Automatic	Manual or Automatic	Manual or Automatic
	Back-up Mode	No	No	No	Yes, DVSA (Lite and Premium)	No	Yes, DVSA (Lite and Premium)	Yes, DVSA (Lite and Premium)
	Support SCSI Disk Array	n/a	n/a	n/a	12 TB*	n/a	13.8 TB**	13.8 TB**
Search	Timeline Search Bar (Color Coded)	No	No	Yes on Remote Software	Yes on Remote Software	Date/time, Camera Number, Events, Motion, Bookmark, Smart Motion Search	Yes	Yes
	Search Mode	Date/time, Events, or Recordings List		Date/time, Events, Motion, Text	Date/time, Camera Number, Events, Motion, Smart Motion Search		Date/time, Camera Name, Events, Pre-Alarm, Motion, Smart Motion Search	
	Smart Motion Search – Motion in specific area	No	No	No	Yes	Yes	Yes	Yes
Display	Live Resolution	PAL NTSC	720 x 576 720 x 484	720 x 576 720 x 484	720 x 576 720 x 484	720 x 576 720 x 484	CIF/2CIF/4CIF Analog and IP Cameras CIF/2CIF/4CIF Analog and IP Cameras	CIF/2CIF/4CIF Analog and IP Cameras CIF/2CIF/4CIF Analog and IP Cameras
	Screen Division (Multi-screen)	Full, 2x2, 3x3 (w/ Quad or Mux attached)		Full, 2x2, Sequence	Full, 2x2, 3x3, 4x4	Full, Sequence, 2x2, 3x3, 4x4, 5+1, 7+1	Full, 2x2, 3x3, 4x4, 5x6	Full, 2x2, 3x3, 4x4, 5x6
	Digital Zoom	No	No	No	Yes	No	Yes	Yes
Security/User Management	Camera Lock-outs by User	No	No	No	Yes	Yes	Yes	Yes
	User Levels	1	3	2	6	3	Unlimited	Unlimited
	Add/Delete	No	No	No	Yes	Yes	Yes	Yes
	User Control	No	No	Yes	Yes	Yes	Yes	Yes
	Set Viewing Permissions	n/a	No	No	No	No	Yes - LDAP	Yes - LDAP
	Centralized User Management	n/a	No	No	No	No	Yes - LDAP	Yes - LDAP
Remote Access	Event Logging by User	No	No	No	No	No	Yes	Yes
	Data Integrity Check (Watermarking, etc.)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Network Protocol	10BaseT Ethernet TCP/IP	10BaseT Ethernet TCP/IP	10/100 Ethernet TCP/IP	10/100 Ethernet TCP/IP	10/100 Ethernet TCP/IP	10/100/1000 Ethernet TCP/IP, UDP Tunneling	10/100/1000 Ethernet TCP/IP, UDP Tunneling
	Web Browser Access	No	Yes	No	Yes	Yes	Yes	Yes
	Simultaneous Accessible Users	n/a	4	5	6	5	20 with software; 5 with web browser	
	Resolution	n/a	n/a	720 x 576 (PAL) 720 x 484 (NTSC)	720 x 576 (PAL) 720 x 484 (NTSC)	352 x 288 (PAL) 352 x 240 (NTSC)	CIF/2CIF/4CIF Analog and IP Cameras	
Remote PC Client	Full Admin Control	n/a	n/a	Yes	Yes	Yes	Yes, Remote Desktop	Yes, Remote Desktop
	PTZ Control	n/a	n/a	n/a	Yes	Yes	Yes	Yes
	Export Options	n/a	n/a	Native, AVI, or JPEG	Native File Format (all cameras), .AVI (single camera)	n/a	Bosch (All Cameras) ASF (Individual and Multiple Cameras)	
Other Features	Instant Playback	No	No	No	Yes	Yes	Yes	Yes
	Bilinx/Up-the-Coax Camera Control	No	No	No	Yes	No	Yes	Yes
	Digital Zoom on Playback	No	No	No	Yes	No	Yes	Yes
	PTZ Joystick Control	No	No	No	Yes	Yes	Yes - DiBos/Bosch VMS	Yes - DiBos/Bosch VMS
	ATM/POS Interface	No	No	No	Yes	No	No	No
	OPC Support	No	No	No	Yes	No	Yes	Yes
Ordering Information	Part Numbers/Ordering Charts	DVR1A1081	DVR1C1161	DVR4C1081 (80 GB) DVR4C1161 (160 GB) DVR4C2161 (320 GB) DVR4C2301 (600 GB)	<p>Inputs: 16, 9, 6 # of Disks: 1, 2 Revision: 2 Type: DVR Divar with DVD writer: E, F, H Divar with Bilinx and DVD writer: G</p>	DVR-8K-016A (160 GB) DVR-16K-032A (320 GB) DVR-8L-016A (160 GB/DVD) DVR-8L-032A (320 GB/DVD) DVR-8L-050A (500 GB/DVD) DVR-8L-100A (1000 GB/DVD) DVR-16L-032A (320 GB/DVD) DVR-16L-050A (500 GB/DVD) DVR-16L-100A (1000 GB/DVD) DVR-16L-200A (2000 GB/DVD)	<p>Inputs: 12, 24, 18, 12, 16 Capacity (x 10 GB): 012, 025, 040 Version: D2 Type: DB</p>	<p>Inputs: 30, 24, 18, 12, 16 Capacity (x 10 GB): 025, 050, 075, 100, 160 Version: R2 Type: DB</p>
	Model	120, 250, 400 GB 12, 20, 40 GB	C1 C2	6 inputs and 750 GB 12 inputs and 750 GB	C1 C2	6 inputs and 750 GB 12 inputs and 750 GB 24 inputs and 1500 GB 30 inputs and 2500 GB 50 inputs and 5000 GB 100 inputs and 10000 GB 160 inputs and 16000 GB	S C1 C2 C3 C4 C5	SCSI Adapter

* Due to SCSI specifications, the daisy chaining of more than two Digital Video Storage Array subsystems (DVA-08K/DVA-16K) on a single Divar is NOT RECOMMENDED. Divar can address up to 6 SCSI IDs (7 for units without DVD writer) and a maximum of 2TB per ID (12TB with DVD writer or 14TB for units without a DVD writer). Stated capacities assume JBOD configuration 8% overhead on the HDDs.

** Due to SCSI specifications, the daisy chaining of more than three Digital Video Storage Array subsystems (DVA-08K/DVA-16K) on a single DiBos is NOT RECOMMENDED. The maximum configuration is (2) DVA-16Ks or (1) DVA16K and (2) DVA08Ks daisy chained. Stated capacities assume JBOD configuration and 8% overhead on the HDDs.